

### REMARKS

Claims 1-18, 37-41, 44, 55-69 and 81 are currently pending in the captioned patent application, of which Claims 1, 7, 37, 55, 68 and 81 are independent claims. Claims 1, 7-8, 13-14, 37-38, 55, 68 and 81 have been amended. Based on the present amendments and for at least the reasons set forth below, applicant respectfully requests reconsideration of the Office Action objections and rejections.

#### Examiner's Use of "Open Loop" and "Closed Loop" Terms

In various parts of the Office Action, the terms "closed loop" and "open loop" have been used to reject certain claims of the present application. Applicants wish to clarify that the closed loop and open loop terminology has been coined by the Examiner; and such terms do not appear in the claims of the present application. Insofar as it will enhance understanding of the invention and expedite prosecution of the present application, applicant may at times herein refer to these closed loop and open loop embodiments to translate arguments into the language chosen by the examiner. Where applied herein, however, such translation or use of the Examiner's terminology is not necessarily intended to limit the scope of the present invention.

For example, Claim 1 claims a valve assembly in communication with a fluid system wherein both a first check valve and a second check valve are in fluid communication with the same fluid system. To the extent such a valve system provides a return path from and to a common refill/evacuation location for fluid through the fluid system, it might be considered a "closed loop" system within the meaning of the Examiner's terminology. However, to the extent the Examiner's definition of "closed loop" would preclude other fluid components from being

interchangeably attached at an inlet/outlet port of the assembly, for example, then this characterization would not be applicable to Claim 1.

### Drawing Objections

The drawings of the present application stand objected to under 37 C.F.R. 1.83(a). In the Office Action, the Examiner states that “[t]he drawings must show every feature of the invention specified in the claims.” See Office Action at pg. 2. The Examiner further states that “the ‘second check valve in fluid communication with at least one fluid reservoir’, in the closed loop system recited in claim 55, of claim 58 must be shown or the feature(s) canceled from the claim(s).” See *Id.*

Applicant respectfully submits that the above referenced features are shown in the figures. As stated in the specification at paragraph [0063]:

The term “evacuation” as applied to the systems and methods disclosed herein may include evacuation of any portion of a fluid of a machine, a receptacle, a reservoir, or other like fluid-retaining system or apparatus. Similarly, the term “refill” as applied to the systems and methods disclosed herein may include refill of any portion of the fluid capacity of a machine, receptacle, reservoir, or other like fluid-retaining system or apparatus.

Additionally, as stated in paragraph [0152] of the specification, “[t]he portion of the fluid system 2306 may include any reasonable combination of valves, pipes, reservoirs and/or other fluidic structures.”

As shown in Figure 33, for example, the check valves may be structured to be part of the same fluid system or independently operating fluid systems. Additionally, see discussion of these embodiments at paragraph [0139] of the specification:

Referring now to Figure 33, in various embodiments of the present invention, a check valve system 2148 may include multiple check valve assemblies 2150, 2170, 2190 configured in accordance with the present invention to service multiple fluid reservoirs 2160, 2180, 2200, for example, and/or multiple kinds of fluids contained in the fluid reservoirs 2160, 2180, 2200. In various embodiments, one or more of the check valve assemblies 2150, 2170, 2190 may be structured to be part of the same fluid system, or any of the check valve assemblies 2150, 2170, 2190 may be structured for operation as part of an independently operating fluid system.

Clearly, the Examiner's description of a "closed loop" system is shown in the drawings of the specification, as a portion of the fluid system may include a reservoir, thus effectively "closing" the loop of the fluid system.

#### Section 112 Rejections

Claims 7-18, 37-41, 44 and 58 stand rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. The Examiner contends that "[t]he recitation of 'said fluid system' of line 30, invokes interconnection of plural, otherwise independent 'systems' for which there is no basis in the application as originally filed." As amended, claim 7 recites in part:

a first check valve structured to permit fluid flow therethrough in response to application of positive pressure at an inlet of said first check valve, further comprising an outlet of said first check valve being in fluid communication with a first portion of a first fluid system...

a second check valve having an outlet in fluid communication with said inlet of said first check valve, said second check valve being structured to permit fluid flow therethrough in response to application of negative pressure at said outlet of said second check valve, further comprising an inlet of said second check valve being in fluid communication with at least the first portion of said first fluid system...

a third check valve structured to permit fluid flow therethrough in response to application of positive pressure at an inlet of said third check valve, further comprising an outlet of said third check valve being in fluid communication with a second portion of a second fluid system...

a fourth check valve having an outlet in fluid communication with said inlet of said third check valve, said fourth check valve being structured to permit fluid flow therethrough in response to application of negative pressure at said outlet of said fourth check valve, further comprising an inlet of said fourth check valve being in fluid communication with at least the second portion of said second fluid system...

(emphasis added). Applicant respectfully submits that claim 7 as amended addresses the Examiner's rejection under 35 U.S.C. §112, first paragraph. For analogous reasons, applicant submits that claims 8-18, 37-41, 44 and 58 are also allowable.

Claims 1-18, 37-41, 44 and 81 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In the Office Action, the Examiner states that:

Claim 1 is readable on at least two of the distinct embodiments disclosed, e.g. 1) the embodiments of figures 32-35 and 38-40 in which the "system" is open looped, i.e. the "portion of a fluid system" as depicted in the figures is not fluidly connected to the fluid reservoir, and 2) the embodiment of figure 36 in which the "system" is closed looped, i.e. the "portion of the fluid system" is fluidly connected to the "portion of the system."

See Office Action at pg. 6-7.

As noted above, Claim 1 is directed to the "closed loop" system coined by the Examiner to the extent that both the first check valve and the second check valve of the claimed valve assembly are in fluid communication with the same fluid system, thereby enabling a return fluid communication path from/to the common refill/evacuation location. As stated in Section

2173.05(b) of the MPEP: "Acceptability of the claim language depends on whether one of ordinary skill in the art would understand what is claimed, in light of the specification."

Applicant submits that one skilled in the art would understand what is claimed in Claim 1 in light of the specification.

Applicant respectfully submits that claim 1 and, for analogous reasons, claims 2-18, 37-41, 44 and 81, meet the requirements of 35 U.S.C. §112, second paragraph.

#### Section 102 Rejections

A claim rejection based on anticipation under §102 requires that a single prior art reference disclose each and every element of the claimed invention. *See* MPEP § 2131 (stating that a claim is anticipated only if each and every element as set forth in the claim is disclosed in a single prior art reference).

#### Rejections in view of Manz / Gargas

##### §102(b) Rejections in View of Manz

Claims 1, 4-6, 55 and 58-67 stand rejected under 35 U.S.C. §102(b) in view of a patent issued to Manz et al. (U.S. Pat. No. 4,805,416). In the words of the Examiner, "Manz et al. discloses a closed loop 'system.'" As amended, Claim 1 recites in part:

a second check valve having an outlet in fluid communication with said inlet of said first check valve, said second check valve being structured to permit fluid flow therethrough in response to application of negative pressure at said outlet of said second check valve, further comprising an inlet of said second check valve being in fluid communication with at least a portion of said fluid system, wherein the application of negative pressure from the inlet/outlet port at the common refill/evacuation location causes fluid to flow from said fluid system through said second check valve into the common refill/evacuation location;

(emphasis added). Applicant respectfully submits that Manz does not disclose at least “wherein the application of negative pressure from the inlet/outlet port at the common refill/evacuation location causes fluid to flow from said fluid system through said second check valve into the common refill/evacuation location.”

In the Office Action, the Examiner rejects the claim citing Manz stating that:

wherein the application of negative pressure (generated at the recovery port of manifold 32 and communicated to the fluid circuit “system” by the single line from manifold 32 shown connected to the above described fluid circuit “system” between check valve 86 and check valve 124) causes fluid to flow from said fluid system through said second check valve (86) into the common refill/evacuation location;

Office Action at pg. 10. Even if one were to assume that the point in Manz where the single line from manifold 32 is shown connected to the fluid circuit system between the two check valves 86, 124 of Manz amounts to a “common/refill evacuation location” as claimed, which assumption the applicant does not concede, negative pressure is not “generated at the recovery port of manifold 32” in Manz. In short, the manifold 32 of Manz does not generate any negative pressure similar to “application of negative pressure from an inlet/outlet port” (emphasis added) as presently claimed. The negative pressure is generated by the vacuum pump 82 in an additional line, between the vacuum pump 88 and the line connecting the two check valves 86

and 124. Applicant submits that for at least the reason that Manz does not disclose “wherein the application of negative pressure from the inlet outlet port at the common refill/evacuation location causes fluid to flow from said fluid system through said second check valve into the common refill/evacuation location,” claim 1 is not anticipated by Manz.

Additionally, as amended, claim 1 recites in part:

the inlet/outlet port in direct fluid communication with said inlet of said first check valve and in direct fluid communication with said outlet of said second check valve at the common refill/evacuation location

(emphasis added). Even if one were to assume that the point of communication of the single line from manifold 32 to/from the fluid circuit “system” between check valve 86 and check valve 124 in Manz amounts to the “inlet/outlet port” of the present claims, which the applicant does not concede, this hypothetical “inlet/outlet port” of Manz is not in direct fluid communication with either the inlet of a first check valve or the outlet of a second check valve. There are multiple paths for fluid to flow in Manz. For example, fluid may flow from the single line from the manifold 32 of Manz through a valve 28 and into a combined unit 26 before ever reaching the first control valve 124. In another example, fluid may flow through a valve 62 to a vacuum pump 88 without ever reaching the second control valve 86. In contrast, in the context of the present claims, fluid flows directly from the outlet of the first check valve to at least a portion of the fluid system without passing through any intervening valves and/or flows directly from at least a portion of the fluid system to the inlet of the second check valve without passing through any intervening valves. For at least the reason that Manz does not disclose the above limitation, claim 1 is not anticipated by Manz.

For at least the above reasons, applicant submits that Manz fails to disclose each and every element of the claimed invention. Applicant therefore submits that claim 1 and by analogy claim 55 are not anticipated by Manz. Applicant also submits that claims 7, 13, 37, 68 and 81 are not anticipated by Manz for reasons analogous to claim 1. Applicant further submits that claims 2-6, and 56-67 are not anticipated by Manz by virtue of their dependence from claims 1 and 55, and on their own merits.

§103(a) Rejections in View of Manz

Claims 7, 10-13, 16-18, 37, 40-41 and 44 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Manz. As detailed above, Manz does not teach all of the elements of amended claim 1, and, for analogous reasons, does not teach all of the elements of claims 7, 13 and 37. Claims 7, 13 and 37 are not anticipated by Manz and the defects of Manz are not cured by the duplication of the valve assembly as cited by the Examiner. Therefore, applicant submits that claims 7, 13 and 37 are allowable. Claims 10-12, 16-18, 40-41 and 44 depend from independent claims 7, 13 and 37, which are not anticipated as described above. Therefore, dependent claims 10-12, 16-18, 40-41 and 44 are not obvious by virtue of their dependence from claims 7, 13 and 37, and on their own merits.

§103(a) Rejections in View of Manz / Gargas

Claims 2, 3, 8-9, 14-15, 38-39, 56, 57, 69 and 81 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Manz in view of a patent to Gargas (U.S. Pat. No. 4,684,334). The Examiner has failed to meet the burden of establishing a prima facie case of



obviousness. As admitted by the Examiner, Manz does not disclose "said fluid system portion includes at least a pre-filter portion...being in communication with at least one filter." See Office Action at pg. 20. The device disclosed in Gargas is an "[i]nlet valve assembly for a paint [s]prayer." See Gargas at Abstract.

The Examiner states that:

It would have been obvious at the time of the invention was made to a person having ordinary skill in the art to employ in Manz et al. in the line connecting the manifold 32 to the refrigerant circuit between check valves 86 and 124, a filter element thus forming a "pre-filter portion" for the purpose of filtering out contamination prior to fluid utilization by the downstream system thus preventing blockage of the system by such filtered contamination as recognized by Gargas.

See Office Action at pg. 20. The assembly of Manz is used in a system for recovering, purifying and recharging refrigerant in a refrigeration system. The system of Manz employs a filter/dryer unit 44 in the purification mode. Adding an additional filter "in the line connecting the manifold 32 to the refrigerant circuit between check valves 86 and 124...thus forming a 'pre-filter portion' for the purpose of filtering out contamination prior to fluid utilization by the downstream system" would not have been obvious to a person of ordinary skill in the art. Applicant respectfully submits that it would not have been obvious to a person of ordinary skill in the art to pre-filter the refrigerant prior to filtering the refrigerant.

Claims 2, 3, 8-9, 14-15, 38-39, 56, 57 and 69 depend from independent claims 1, 7, 37, 55 and 68, which are not anticipated as described above. Therefore, dependent claims 2, 3, 8-9, 14-15, 38-39, 56, 57 and 69 are not obvious by virtue of their dependence from claims 7, 55 and 68, and on their own merits.

As outlined above, Manz does not teach all of the elements of claim 1, and, for analogous reasons, does not teach all of the elements of claim 81. Claim 81 is not anticipated by Manz and the defects of Manz are not cured by Gargas. Therefore, applicant submits that claim 81 is allowable.

Rejections in view of Raines / Gargas

§102(b) Rejections in View of Raines

Claims 1 and 4-6 stand rejected under 35 U.S.C. §102(b) in view of a patent issued to Raines (U.S. Pat. No. 4,246,932). Applicant respectfully disputes the Examiner's contention that:

when the scope of the term "portion" in line 11 of claim 1 is considered to mean a different "portion" of the fluid system, such as in an "open" loop system as depicted in instant application figures 32-35 and 38-40 the following applies.

See Office Action at pg. 8. Applicant submits that the claims of the present invention cover the "closed loop" embodiment, as described by the Examiner, to the extent that a return path exists to a portion of a fluid system from a first check valve and also from a portion of the same fluid system to a second check valve.

Raines discloses a valve assembly for use in the medical field (i.e., in connection with a syringe S). In an aspiration procedure involving the Raines valve assembly, the syringe is applied to create a pressure gradient in the interior of the assembly. At a predetermined level, the pressure gradient causes a second disc 150 to bias in a flexed position (see Figure 2) that permits fluid communication between the interior of the valve assembly 10 with tubing C via a tubing connector 20. The pressure gradient causes flow through the tubing connector 20 into the

interior of the assembly 10. The flow established by such pressure gradient through the tubing connector 20 is around the second disc 150 and into cannula K in the interior of the assembly 10. This pressure gradient also biases a first disc 152 onto a disc seat defined by the edges of counterbores 108 and 108' (see Figure 3). Thus, in the aspiration step, the second valve 150 is open and first valve 152 is closed. In this manner, fluid can be drawn from a source (not shown) into the assembly 10 (see Raines, col. 4, line 50 to col. 5, line 14).

Conversely, an injection procedure is carried out in Raines by reversing the above-described aspiration procedure. The pressure gradient established in the interior of the assembly 10 by injecting the syringe S acts on the valve discs 150 and 152. The pressure gradient moves the discs such that the second disc 150 abuts the rim 96 and thus occludes the bore 24, and, when the pressure is sufficient, moves the first disc 152 away from the disc seat to establish flow path 200' (see Figure 4). In this manner, fluid passes through the flow channel 200' and moves into a bore 124. The fluid drawn into the assembly 10 by the aspiration procedure is thus forced into a receiver (not shown) via the bore 124 by applying the injection step. In the injection step, the second valve 150 is closed and the first valve 152 is open (see Raines, col. 5, lines 15-37).

In contrast to Raines, amended Claim 1 recites, in pertinent part:

a first check valve structured to permit fluid flow therethrough in response to application of positive pressure at an inlet of said first check valve, further comprising an outlet of said first check valve being in fluid communication with at least a portion of a fluid system, wherein the application of positive pressure from an inlet/outlet port at a common refill/evacuation location causes fluid to flow from the common refill/evacuation location through said first check valve into said fluid system;

a second check valve having an outlet in fluid communication with said inlet of said first check valve, said second check valve being structured to permit fluid flow therethrough in response to application of negative pressure at said outlet of said second check valve, further comprising an inlet of said second check valve being in fluid communication with at least a portion of said fluid system, wherein the application of negative pressure from the inlet outlet port at the common refill/evacuation location causes fluid to flow from said fluid system through said second check valve into the common refill/evacuation location; and,

the inlet/outlet port in direct fluid communication with said inlet of said first check valve and in direct fluid communication with said outlet of said second check valve at the common refill/evacuation location.

The Raines device does not disclose at least “a first check valve structured to permit fluid flow...wherein the application of positive pressure from an inlet/outlet port at a common refill/evacuation location causes fluid to flow from a common refill/evacuation location through said first check valve into said fluid system” and “a second check valve...further comprising an inlet of said second check valve being in fluid communication with at least a portion of said fluid system, wherein the application of negative pressure from the inlet outlet port at the common refill/evacuation location causes fluid to flow from said fluid system through said second check valve into the common refill/evacuation location” as claimed in claim 1.

As stated by the examiner in the Office Action:

The patent to Raines discloses...a “valve assembly comprising: a first check valve (outlet disk 152) structured to permit fluid flow therethrough in response to application of positive pressure at an inlet of said first check valve (152), further comprising an outlet (124) of said first check (152) valve being in fluid communication with at least a portion of a fluid system (represented by conduit C’); a second check valve (inlet disk 150) having an outlet in fluid communication with said inlet of said first check valve (152), said second check (150) valve being structured to permit fluid flow

therethrough in response to application of negative pressure at said outlet of said second check valve (150); and, an inlet/outlet port (channel 100 and bore 60) in fluid communication with said inlet of said first check valve (152) and said outlet of said second check valve (150) at a common refill evacuation location (100)" as recited.

In attempting to track the Examiner's argument, which tries to map the elements of Claim 1 to Raines, applicant assumes hypothetically (and merely for the sake of considering the Examiner's argument) that the outlet disk 152 of Raines is the equivalent of the first check valve, and the inlet disk 150 of Raines is the equivalent of the second check valve. Referring to Figures 2 and 3 of Raines and applying the Examiner's interpretation of Raines to the language of amended Claim 1, Raines does not teach all of the elements of Claim 1.

Raines may appear to fit the language of a portion of Claim 1. For example, the outlet disk 152 (first check valve) may be structured to permit fluid flow therethrough in response to application of positive pressure (from the syringe S being pushed forward) at the inlet of the outlet disk 152 (first check valve), further comprising an outlet 124 of the outlet disk 152 (first check valve) being in fluid communication with at least a portion of a fluid system (represented by conduit C'), wherein the application of positive pressure (from the syringe S being pushed forward) causes fluid to flow from the channel 100 (common refill/evacuation location) through said outlet disk 152 (first check valve) into said fluid system (represented by conduit C'). This appears to occur during the injection procedure of Raines.

Although Raines, as interpreted by the Examiner, appears to follow the language from a portion of Claim 1, clearly Raines does not teach all of the elements of Claim 1. Attempting to track the language of amended Claim 1, the inlet disk 150 (second check valve) may have an outlet in fluid communication with said inlet of the outlet disk 152 (first check

valve), the inlet disk 150 (second check valve) may be structured to permit fluid flow therethrough in response to application of negative pressure (from the syringe S being withdrawn) at the outlet of the inlet disk 150 (second check valve). However, in this hypothetical interpretation, Raines clearly does not disclose an inlet of the inlet disk 150 (second check valve) being in fluid communication with at least a portion of said fluid system, wherein the application of negative pressure (from the syringe S being withdrawn) causes fluid to flow from said fluid system (represented by conduit C') through the inlet disk 150 (second check valve) into the channel 100 (common refill/evacuation location). Therefore, this hypothetical application of Raines does not teach all of the elements of Claim 1.

Assuming next, hypothetically and merely for the sake of attempting to map the Examiner's argument to Claim 1, that the inlet disk 150 of Raines is the equivalent of the first check valve of Claim 1, and the outlet disk 152 of Raines is the equivalent of the second check valve of Claim 1, Raines still does not teach all of the elements of Claim 1. In this configuration, the inlet disk 150 (first check valve) may be structured to permit fluid flow therethrough in response to application of positive pressure (from the conduit C) at the inlet of the inlet disk 150 (first check valve), further comprising an outlet of the inlet disk 150 (first check valve) being in fluid communication with at least a portion of a fluid system (represented by the channel 100 and the bore 60), wherein the application of positive pressure (from the conduit C) causes fluid to flow from the conduit C (common refill/evacuation location) through said inlet disk 150 (first check valve) into said fluid system (represented by the channel 100 and the bore 60). Attempting to map this configuration to Claim 1 fails because the conduit C is clearly not a common refill/evacuation location.

In addition, in this configuration, the outlet disk 152 (second check valve) does not have an outlet in fluid communication with the inlet of the inlet disk 150 (first check valve). The outlet disk 152 (second check valve) may be structured to permit fluid flow therethrough in response to application of negative pressure at said outlet of the inlet disk (second check valve), although it is unclear how negative pressure would be applied from conduit C', given that conduit C' is the point of injection in Raines. The inlet of the outlet disk 152 (second check valve) may be in fluid communication with at least a portion of a fluid system (represented by the channel 100 and the bore 60), but the application of negative pressure (from the conduit C') does not cause fluid to flow from said fluid system (represented by the channel 100 and the bore 60) through the outlet disk 152 (second check valve) into the conduit C (common refill/evacuation location).

Therefore, even when making certain hypothetical assumptions to see how the Examiner has attempted to map the teachings of Raines to the elements of Claim 1, Raines nonetheless does not disclose all of the elements of Claim 1.

The structure of the assembly of Claim 1 functions to permit both fluid evacuation operations and fluid refill operations to be accomplished through the "inlet/outlet port" at the "common refill/evacuation location" of the assembly. As noted in applicant's specification, operation of the claimed valve assembly provides that "different types of fluids (e.g., without limitation, engine oil, transmission fluid, hydraulic fluid, coolants, and other machine fluids) can be alternately and/or sequentially evacuated/refilled" (see para. 109). It can be seen that there are at least two kinds of fluid flows that can be passed through the "common refill/evacuation

location” of Claim 1, including fluid flow associated with a refill operation and fluid flow associated with an evacuation operation.

In contrast, the Raines assembly only functions to provide fluid flow from a source (which is not shown or described in Raines), through an interior of its assembly 10, to a receiver (also not shown or described in Raines). There is no teaching or suggestion in Raines of performing an evacuation procedure, for example, by forcing the fluid to flow from the receiver back to the source through the fluid system. To accomplish this, Raines would need to provide an integrated fluid system that directly connects the receiver to the source other than through the assembly 10. Raines cannot function to perform the kinds of fluid evacuation operations that can be accomplished by the assembly recited in Claim 1.

The Examiner argues in the Office Action that:

[F]igures 32-35 and 38-40 are the only figures demonstrative of a “fluid reservoir.” These embodiments are considered open looped as the outlet is not disclosed as being in fluid communication with the inlet...it is not seen as possible to completely “evacuate” all fluid from the “system” through the common refill/evacuation port.

See Office Action at pg. 17. For example, as shown in Figure 32, the fluid reservoir 2110 may be a part of the same fluid system as the portion of a fluid system 2106, thus creating, as described by the Examiner, a “closed loop” as claimed in claim 1.

Each of independent claims 7, 37, 55, 68 and 81 are allowable for at least reasons analogous to those described above with regard to claim 1. Furthermore, claims 2-6, 8-18, 38-41, 44, 56-67 and 69 depend from, either directly or indirectly, one of independent Claims 1, 7, 37, 55 or 68, and are therefore allowable for the same reasons as the independent claims.



§103(a) Rejections in View of Raines / Gargas

In addition, claims 2, 3 and 81 stand rejected in view of a proposed combination of Raines and Gargas. The Examiner has failed to meet the burden of establishing a prima facie case of obviousness. As admitted by the Examiner, “Raines discloses all the claimed features with the exception of having ‘said fluid system portion includes at least a pre-filter portion...being in fluid communication with at least one fluid filter.’” The device disclosed in Gargas is an “[i]nlet valve assembly for a paint [s]prayer.” See Gargas at Abstract. Although Gargas discloses a filter element downstream of a pump assembly, the patent issued to Gargas (just as Raines) does not disclose and is clearly incapable of providing both a refill and an evacuation procedure.

The device disclosed in Gargas is incapable of providing both a refill and an evacuation procedure due to the fact that the paint sprayer of Gargas does not have a return loop. The paint sprayer of Gargas operates in the so-called “open loop” manner in that the paint passes through the filter and then is applied to a surface. There is no device disclosed in Gargas to return the paint from the surface to the paint reservoir, i.e. no return path. Both Raines and Gargas relate to “open loop” systems. Neither Raines nor Gargas disclose the required elements for a “closed loop” system as claimed in claim 1.

As outlined above, Raines does not teach all of the elements of claim 1, and, for analogous reasons, does not teach all of the elements of claim 81. Claim 81 is not anticipated by Raines and the defects of Raines are not cured by Gargas. Therefore, applicant submits that claim 81 is allowable.

Claims 2 and 3 depend from independent claim 1 which is not anticipated as described above. Therefore, dependent claims 2 and 3 are not obvious by virtue of their dependence from claim 1, and on their own merits.

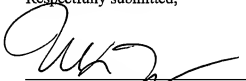
#### Miscellaneous

Applicant submits that the dependent claims pending herein are allowable at least by virtue of their dependency on independent claims which, as applicants describe above, are patentable over the cited references. Applicant reserves the right, however, to make supplemental arguments as may be necessary, because the dependent claims of the present application include additional features that further distinguish the claims from the cited references. A detailed discussion of these distinctions is believed to be unnecessary at this time in view of the fundamental distinctions already set forth in the above remarks.

SUMMARY

Based on the foregoing remarks, applicant respectfully requests reconsideration and allowance of all pending claims of the present application. Any questions or issues regarding this response are invited to the attention of the undersigned representative by telephone or e-mail, so that such questions or issues can be addressed expeditiously.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Michael D. Lazzara', is written over a horizontal line.

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